



## GENERAL INFORMATION

Diamond Tech's glass tile may be used for interior and exterior wall and in some cases floor applications. Glass tiles are manufactured to satisfy industry specifications for glazed wall tile and are recommended for residential and commercial use. Glass tiles are impervious to water and stains, highly resistant to chemical attack, resistant to fading and discoloration. Variations in color, shade and size are inherent in all fired glass products. The glass tiles should not be exposed to high abrasion, or extremely heavy impact.

The following recommendations comply with the TCNA (Tile Council of North America) Handbook Guidelines.

## RECOMMENDED SUBSTRATES

Well cured mortar beds-ANSI A108.1B (cured a minimum of 7 days). Cementitious backer units (CBU)-ANSI A118.9 (Note: An ANSI A108A-2.1.8 membrane is required behind all CBU installations in wet areas. Concrete slabs (on grade) cured for 28 days minimum. Gypsum board (dry areas only)-ASTM C1396 or ASTM C1396M-04.

**Note:** Directly bonding glass tiles to wood substrates is not recommended. All surfaces to receive tile shall be left clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, adhesive residue, form release agent or any other deleterious substance and debris which may prevent or reduce adhesion.

Glass tile expands and contracts more than ceramic and porcelain tile. This movement needs to be accommodated in the installation, particularly where temperature changes may occur. Be sure to use caulked joints on all inside corners where walls intersect, especially in showers, backsplashes and cook top areas. This recommendation is standard installation procedure though frequently ignored with ceramic tile. It is critical with glass tile installation.

## SETTING MATERIALS

We recommend any high grade flexible mortar system (latex modified) as a setting material for glass tiles. For grouts, a premium polymer-modified sanded or unsanded grout for joints 1/8" (3mm) wide. For grout joints larger than 1/8" (3mm) wide use a sanded grout.

## INSTALLATION

**IMPORTANT TO NOTE:** If the product has a directional grain, it will be indicated on the mounting surface with an arrow. It is important to make sure that all directional arrows are facing in the same direction when installing these products.

### *Mesh-back Mosaic Tiles*

1. Mix setting materials according to manufacturers' instructions.
2. Apply setting materials to the substrate using the notched side of a 3/16" x 5/32" V-notched trowel.
3. Using the flat side of the trowel, smooth out all ridges to achieve a consistent, even 1/8" thick coverage.
4. Apply glass mosaics sheets, **MESH-SIDE DOWN** into the setting materials, firmly press into the freshly troweled setting material.
5. Using a rubber float or equivalent tool, gently press the tile into the adhesive to insure complete contact. Do not push the sheets too deeply into the setting materials, as to cause the setting materials to ooze up between the spaces between the tile. We recommend leaving at least 2/3 of the tile depth available for grouting.
6. Adjust tile sheets for correct alignment and even spacing between sheets. Do not allow setting material to

- dry or skin over before completing this process.
7. Clean all excess setting materials with a damp sponge. Wipe away any haze that may have remained behind.
  8. After 24 hours, mix grout, following manufacturer's instructions.
  9. Grout openings between tiles and sheets.
  10. Clean all excess grout immediately with a damp sponge.
  11. Polish off any remaining haze with a dry cloth or towel.
  12. After grouting, protect area from light foot traffic and light water exposure for at least 72 hours. Protect area from heavy traffic and regular use for at least 7 days.

#### *Individual Glass Tiles*

1. Mix setting materials according to manufacturer's instructions.
2. Use a 3/16" square-notched trowel to apply setting materials.
4. Additionally, each piece should be "back-buttered" with a thin, continuous layer of the setting material.
5. Press tile into the setting materials. Leaving 1/16 space between each tile for grout.
5. After tile application, use a rubber float or equivalent tool, gently press the tile into the adhesive and flatten to insure complete contact. Do not push the tiles too deeply into the setting materials, as this will cause the setting materials to ooze up between the spaces in the tile.
6. Adjust tile for correct alignment and even spacing between. Do not allow setting material to dry or skin over before completing this process.

#### **GENERAL INSTALLATION FOR ALL TILES**

- Allow setting materials sufficient time to set (see manufacturer's instructions).
- Clean all excess setting materials with a damp sponge. Clean all excess setting materials that may have remained on the tile surface. Wipe away any haze that may have remained behind.
- After 24 hours, mix grout, following manufacturer's instructions.
- Grout openings between tiles.
- Clean all excess grout immediately with a damp sponge.
- Polish off any remaining haze with a dry cloth or towel.
- After grouting, protect area from light foot traffic and light water exposure for at least 72 hours. Protect area from heavy traffic and regular use for at least 7 days.

#### **CUTTING AND DRILLING**

We highly recommend that cuts be made with a wet saw and a NEW diamond rimmed blade designed SPECIFICALLY to cut glass (we recommend the MK-215GL). Slowly push the tile into the blade. Pushing too hard or cutting too fast may cause the glass to chip. Ceramic tile blades are NOT recommended; their cuts are too coarse and tend to chip tile surface of the glass. To finish the edge, smooth with a diamond hand pad, tile blade or dressing stone.

Drilling holes through glass tile can be accomplished with a diamond core bit using a drill with low speed (250 to 300 rpm). Continually misting the tile and drill bit during cutting is imperative to prevent glass from cracking. If partitions or fixtures are to be attached with anchoring bolts, drill hole 1/8" larger to avoid stress transfer to the tile. If tiles have not been installed, drilling from both sides will minimize chipping and cracking.

#### **NOTES:**